Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

~~CONFIDENTIAL~~

~~SECRET~~ 102069-c

58

TABLE OF CONTENTS

NIE 11-5-55: AIR DEFENSE OF THE SINO-SOVIET BLOC, 1955-1960

	Page
THE PROBLEM	1
SCOPE	1
CONCLUSIONS	2
Present Over-all Capabilities	4
Future Over-all Capabilities	5
Defense Capabilities by Region	7
European Satellites	7
Soviet Far East	8
Kola and Leningrad Areas	8
Baltic-Central and Western USSR - Black Sea	9
China - North Korea - Indochina	9
Central and Northern Siberia	9
DISCUSSION	11
I. THE MAGNITUDE OF SINO SOVIET-BLOC AIR DEFENSE REQUIREMENTS	11
A. The Air Threat to the Bloc	11
Warning Times	12
Aircraft	12
Guided Missiles	13
Aircraft Armament and Electronics	14
Bombs and Warheads	15
Scale and Direction of Attacks	15
B. Probable Air Defense Requirements to Meet Estimated Threat	16
Detection	17
Tracking, Reporting, and Command Reaction	18
Identification	18
Engagement and Kill	19

~~CONFIDENTIAL~~

~~SECRET~~

DOCUMENT NO.
NO CHANGE IN CLASS. ☐
☐ DECLASSIFIED
CLASS. CHANGED TO: TS S (C)
NEXT REVIEW DATE: 1991
AUTH: HR 70-2
DATE: 19 JUNE 8 REVIEWER: 018557

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

		Page
	Air Facilities	19
II.	PRESENT BLOC AIR DEFENSES	21
A.	Over-all Organization of Air Defense	22
	Chart I	25
	Chart II	27
	Air Defense Personnel	29
B.	Bloc Fighter Organization, Strength, and Equipment	30
	Organization	30
	The IA-PVO	31
	Strength and Deployment	32
	Equipment	34
	Airborne Radar	36
C.	Control and Warning	37
	Organization	37
	Equipment	38
	Numbers and Deployment	40
	Ground Observer Posts	40
D.	Communications	41
	Organization	41
	Air-Ground Communications Equipment	43
	Ground Communication Equipment	43
	Automatic Computation and Data Handling Equipment	45
	Radio Navigation Equipment	45
E.	Antiaircraft Artillery	46
	AA Guns	47
	Automatic Weapons	48
	Searchlights	49
	Unguided Rockets	50
	AAA Strength and Deployment	50
	Guided Missiles	51

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

		Page
F.	Electronic Countermeasures	52
	Communications Jamming Equipment	52
	Passive Countermeasure Equipment	53
	Soviet Vulnerability to Electronic Countermeasures	53
G.	Air Facilities	55
H.	Logistic Support, Maintenance, and Training	58
	Maintenance	59
	Training	62
I.	Passive Defense	64
	Organization	65
	Deception	65
	Dispersal	65
	Underground Installations	65
	Training	66
J.	Summary Evaluation	67
III.	TRENDS IN BLOC AIR DEFENSES THROUGH 1960	69
A.	Trends in Strength and Equipment	71
	New Fighter Types	72
	Over-all Fighter Strength Through 1960	72
	Future Radar Coverage	73
	Radar Deployment	75
	Communications	76
	Antiaircraft Artillery	75
	Table	78
	Guided Missiles	79
	Future Guided Missiles for Air Defense	80
	Electronic Countermeasures	81
B.	Economic Impact of Air Defense	82
	Cost of Air Defense 1955-1960	82
	Electronic Equipment and Precision Instruments	85
	Other Equipment	87
C.	Summary Evaluation	88

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Page

APPENDIX A 90

APPENDIX B 92

APPENDIX C 93

APPENDIX D 97

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

CONFIDENTIAL

[redacted]

ERRATA SHEET

NIE 11-5-55

AIR DEFENSE OF THE SINO-SOVIET BLOC, 1955-1960

Page 3, para. 3, line 5: delete "11,000" and insert "14,600 authorized (TO&E)*"
* Actual strength is estimated to be approximately 85 percent of TO&E but varies considerably as new models are phased in.
line 6: change "10,500" to "13,000" and change "13,700" to "3,800"

Page 4, para. 5, line 5: insert "as yet" after "system is"

Page 6, para. 12: delete second sentence and insert "This program, if implemented, would reduce the rate of growth of heavy industry, and certain portions of the program could be fulfilled only if the electronic equipment industries were expanded to a far greater extent than is currently estimated."

Page 7, para.13: after first line - insert ", except East Germany,"

Page 9, para. 17, line 2: delete "facilities" and insert "capabilities"

Page 15, para. 25, line 8: delete "medium land-based bombers" and insert "land-based medium bombers"
line 9: should read as follows: "seaplanes from bases in the US, UK, France, Italy, Greece, Spain, Turkey, North Africa,"

Page 16: Insert major subheading after para. 27: "B. Probable Air Defense Requirements to Meet Estimated Threat"

Page 18, para. 30, line 11: insert after "organization," "below the divisional level" delete last sentence and insert, "Since the Soviet Air Defense System is not decentralized below the divisional level, considerable reorganization of the system would be required."

[redacted]

CONFIDENTIAL

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Page 32, para. 49, line 2: change "14,660" to "14,600". change figures in table as follows: "4,773" to "4,550" - "3,700" to "3,800" - "2,000" to "2,050."

Page 41, line 3, delete "where electronic equipment is not adequate"

Page 51, para. 77, line 7: delete second word "and" and insert after 88 mm guns and 10,500 light guns. delete complete parentheses.

Page 51, add para. 77a: "Heavy AAA weapons are deployed in some 286 regiments of which 172 are in Soviet forces, 44 in European Satellite forces, and 70 in the Sino-Bloc forces. In addition, light AAA units are deployed throughout the armed forces of the Bloc in AAA Division Regiments, Line Regiments, and Battalions, HTSP regiment batteries, and Corps Regiments. (For geographic deployment of AAA guns see Chart III, page 78.)

Page 44, para. 66, line 2: delete "and" after Moscow and insert "and" after Leningrad,

Page 47, para. 70, line 3: after "sites" insert "which simultaneously"
line 4: delete first word, and insert "pertinent AAA fire direction centers"

Page 59, first line: delete last word "and"
line 3: change point after program to semicolan and insert "and (d) limited availability of base storage facilities."

Page 78: Figures in Table require revision and updating by G-2.

Page 82, para. 122, line 3: change "99 billion" to "96 billion"
line 4: change "62 billion" to "60 billion"

Page 83, para. 123, line 3: change "70 percent" to "65 percent"

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Page 83, Table: change numbers as follows:

Year	Estimated Military Expenditures	Projected Air Defense Program	Balance for Other Programs
1954	153	31	119
1955	163	40	123
1956	165	48	117
1957	167	52	115
1958	171	67	104
1959	174	77	97
1960	174-181	96	78-85

Page 84, Table: change numbers as follows:

			Billion 1951 Rubles
Year	Projected Air Defense Program	Other Programs	Total Expenditures
1954	31	122	153
1955	40	122	162
1956	48	122	170
1957	52	122	174
1958	67	122	189
1959	77	122	199
1960	96	122	218

Page 84, para. 125, line 6: insert "5-7" in blank
line 8: insert "56 billion rubles" in blank

Page 85, line 1: insert "about 325 billion rubles" in blank

Page 85, para. 126, line 6: make line to read as follows: "the cost of the program in 1954 and 34 percent in 1960. Production requirement"

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9

Page 86, para. 126, line 10: change "retard" to "reduce"

Page 86, para. 127, line 1: delete first three words and insert "A further,"

Page 87, para. 128, line 5: delete "would double" and insert "would increase substantially"

Declassified and Approved For Release 2013/05/09 : CIA-RDP79R01012A005100040004-9